ABSTRACT OF THE DISCLOSURE

To detect the position of an object in a non-contact state at high reliability, high accuracy, and high resolving power, a linearly polarized light beam from a semiconductor laser source is converted into an almost parallel light beam by a collimator lens, transmitted through a non-polarization beam splitter, focused by an objective lens, and transmitted through a crystal plate. When an appropriate thickness t is given to the crystal plate, the principal rays of polarized light beams o and e emerge while being shifted by a predetermined amount and are focused into a spot or line having a width w near a slit-shaped marking (M) formed on a head arm whereby portions shifted from each other are illuminated. The two reflected light beams pass through the crystal plate. The principal rays of the two light beams match again and are returned to the non-polarization beam splitter, split into transmitted light and reflected light. The reflected light is split by a polarizing prism in accordance with the polarization planes of ordinary light beam (o) and extraordinary light beam (e). These light beams become incident on light receiving elements. A displacement of the marking (M) is detected on the basis of changes in signal levels of two signals output from the light receiving elements.